

## PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation

<b>RTIP ID#</b> RIV110122				
<b>TCWG Consideration Date:</b> September 25, 2012				
<b>Project Description:</b> The Riverside County Transportation Commission (RCTC), in cooperation with the California Department of Transportation (Department) District 8, proposes to improve Interstate (I-) 215 in the City of Murrieta. The project would add one mixed flow lane to the existing two lanes on the southbound I-215 mainline between Murrieta Hot Springs Road to just south of where the I-215 southbound connector crosses I-15. The total length of the project is approximately 1.6 miles, including the transition striping. The alternatives include one Build Alternative and the No-Build Alternative. Attachments A and B show the project vicinity and location, respectively. In addition, click <a href="#">here</a> for Google Map aerial photography of the project vicinity.				
<b>Type of Project</b> (use Table 1 on instruction sheet) Change to existing state highway				
<b>County</b> Riverside	<b>Narrative Location/Route &amp; Postmiles:</b> Interstate 215 South Connector PM8.0/10.0  <b>Caltrans Projects – EA#</b> 0F1630			
<b>Lead Agency:</b> Riverside County Transportation Commission				
<b>Contact Person</b> Keith Cooper	<b>Phone#</b> 213-627-5376	<b>Fax#</b> 213-627-6853	<b>Email</b> <a href="mailto:Keith.Cooper@icfi.com">Keith.Cooper@icfi.com</a>	
<b>Hot Spot Pollutant of Concern</b> <b>PM2.5</b> ✓ <b>PM10</b> ✓				
<b>Federal Action for which Project-Level PM Conformity is Needed</b>				
✓ <b>Categorical Exclusion (NEPA)</b>	<b>EA or Draft EIS</b>	<b>FONSI or Final EIS</b>	<b>PS&amp;E or Construction</b>	<b>Other</b>
<b>Scheduled Date of Federal Action:</b> 2013				
<b>NEPA Delegation – Project Type</b>				
<b>Exempt</b>		<b>Section 6004 – Categorical Exemption</b>	✓ <b>Section 6005 – Non-Categorical Exemption</b>	
<b>Current Programming Dates</b> (as appropriate)				
	<b>PE/Environmental</b>	<b>ENG</b>	<b>ROW</b>	<b>CON</b>
<b>Start</b>	2010	2006	N/A	2014
<b>End</b>	2013	2012	N/A	2015

**Project Purpose and Need (Summary):**

Project Purpose

I-215 is a major north-south freeway facility that begins at the southern junction with I-15 in the City of Murrieta in Riverside County, and continues north to its terminus at the junction with I-15 near Devore in San Bernardino County. Adjacent projects to the north and south have been proposed to widen southbound I-215 to three lanes. The I-215 South Widening project, between Murrieta Hot Springs Road and Scott Road (0F161), undertaken by RCTC would widen I-215 to three lanes in each direction from Scott Road to Murrieta Hot Springs Road. The French Valley Interchange project undertaken by the City of Temecula would widen I-215 to three lanes beyond where the I-215 southbound crosses I-15. The purpose of the proposed project is to provide the third southbound lane between the 0F161 project and the French Valley Parkway project in order to alleviate a short, two-lane bottleneck segment of I-215 between Murrieta Hot Springs Road and to just south of where I-215 southbound crosses I-15.

Project Need

The projected growth and development forecasts indicate that traffic volumes will increase along the I-15 and I-215 corridors. The project is needed to relieve projected congestion by improving capacity and operational characteristics along this segment of I-215. Moreover, without the project a short two-lane bottleneck segment of I-215 would exist between Murrieta Hot Springs Road and I-15, adding to regional traffic and congestion.

**Surrounding Land Use/Traffic Generators** *(especially effect on diesel traffic)*

Sensitive receptors in the vicinity of the study area that could be affected by the proposed project include the following.

- Single-family homes located south of I-215 and Jackson Street (closest home is approximately 0.05-mile from the I-215 northbound lanes)
- Single- and multi-family homes north of the I-215/Murrieta Springs Interchange (closest residence is approximately ¼-mile northeast of the interchange)
- Oak Spring Community Church located 0.6-mile southeast of the I-215/Murrieta Springs Interchange
- Promise Christian Church located 0.2-mile west of I-15
- Alta Murrieta Sports Park located ½-mile north of the I-215/Murrieta Springs Interchange
- Rancho Children's Extended care located 0.15-mile northwest of the I-215/Murrieta Springs Interchange

Traffic generating land uses in the vicinity of the project area (that could affect diesel traffic) include the following.

- Commercial uses, including Sam's Club, immediately south of the I-215/Murrieta Springs Interchange
- Walmart Super Center adjacent to the I-15, Murrieta Springs Interchange

**Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility**

The traffic study for the proposed project only evaluated ADT on southbound I-215/I-15 (VRPA Technologies 2012). Total ADT on roadway segments in the study area was calculated using data from the Caltrans Traffic Data Branch (2012) and southbound ADT reported in the traffic study. The ratio of southbound to total ADT on each roadway segment was calculated by dividing the southbound ADT reported in the traffic study for existing conditions by the total ADT volumes provided by Caltrans (2009 data). Calculated ratios for each roadway segment were assumed to remain constant for all future years.

Table 1 summarizes opening-year (2015) total and truck ADT on roadway segments in the study area under build and no-building conditions. Total ADT values were calculated by dividing the southbound ADT reported in the traffic study for opening-year conditions (2015) by the calculated ADT ratios. Trucks were assumed to represent 5% of the traffic volume (VRPA Technologies 2012). Attachment C presents the ADT calculations based on the traffic analysis (VRPA Technologies 2012).

**Table 1. Opening-Year (2015) AADT and Truck ADT**

Roadway Segment	No Build		Build		Project Effect (Build - No Build)	
	Total ADT	Truck ADT	Total ADT	Truck ADT	Total ADT	Truck ADT
<b>I-215</b>						
Los Alamos Road to Murrieta Hot Springs Road	98,568	4,928	98,568	4,928	0	0
Murrieta Hot Springs Road to I-15 Junction	90,628	4,531	90,628	4,531	0	0
At I-15 Junction	60,661	3,033	60,661	3,033	0	0
<b>I-15</b>						
Murrieta Hot Springs Road to I-215 Junction	124,133	6,207	124,133	6,207	0	0
I-215 Junction to Winchester Road	138,818	6,941	138,818	6,941	0	0
<b>Valley Parkway Collector</b>						
I-15 Diverge	37,024	1,851	37,024	1,851	0	0
I-215 Ramp to I-15	32,495	1,625	32,495	1,625	0	0
South of I-215 Ramp	69,519	3,476	69,519	3,476	0	0

Although truck traffic will not exceed more than 8% of the traffic volumes, ADT on I-15 would be in excess of the FHWA and EPA's POAQC guidance criterion of 125,000, while truck ADT would remain below 10,000 (8% of 125,000). ADT on mainline I-215, which is the location of the proposed widening, would not exceed this criterion, however. As shown in Table 1, implementation of the project would have no effect on total traffic volumes or truck traffic volumes on roadway segments in the project area. Additionally, the project would improve LOS on I-215 between Murrieta Hot Springs Road and the I-15 Junction, while having no impact on other roadway facilities in the project area (see Table 3 below).

**RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility**

Table 2 summarizes design-year (2035) total ADT and truck ADT on roadway segments in the study area under build and no-building conditions. As discussed above, total ADT was calculated using data from the Caltrans Traffic Data Branch and design-year southbound ADT reported in the traffic study. Trucks were assumed to represent 5% of the traffic volume.

**Table 2. Design-Year (2035) AADT and Truck ADT**

Roadway Segment	No Build		Build		<i>Project Effect (Build - No Build)</i>	
	Total ADT	Truck ADT	Total ADT	Truck ADT	Total ADT	Truck ADT
<b>I-215</b>						
Los Alamos Road to Murrieta Hot Springs Road	137,131	6,857	137,131	6,857	0	0
Murrieta Hot Springs Road to I-15 Junction	128,950	6,447	128,950	6,447	0	0
At I-15 Junction	86,269	4,313	86,269	4,313	0	0
<b>I-15</b>						
Murrieta Hot Springs Road to I-215 Junction	240,151	12,008	240,151	12,008	0	0
I-215 Junction to Winchester Road	235,132	11,757	235,132	11,757	0	0
<b>Valley Parkway Collector</b>						
I-15 Diverge	71,685	3,584	71,685	3,584	0	0
I-215 Ramp to I-15	46,280	2,314	46,280	2,314	0	0
South of I-215 Ramp	117,966	5,898	117,966	5,898	0	0

Although truck traffic will not exceed more than 8% of the traffic volumes, ADT on I-15 and I-215 would be in excess of the FHWA and EPA's POAQC guidance criterion of 125,000 and truck ADT would exceed 10,000 (8% of 125,000). However, as shown in Table 2, implementation of the project would have no effect on total or truck ADT on roadway segments in the project area. The project will also provide improved LOS and density on I-215 between Murrieta Hot Springs Road and the I-15 Junction, while having no impact on other roadway facilities in the project area (see Table 4 below).

**Describe potential traffic redistribution effects of congestion relief** (*impact on other facilities*)

The purpose of the project is to reduce congestion by improving capacity and operational characteristics on I-215. Specifically, the project intends to provide a third southbound lane between the 0F161 project and the French Valley Parkway project in order to alleviate a short, two-lane bottleneck segment of I-215 between Murrieta Hot Springs Road and to just south of where I-215 southbound crosses I-15.

Tables 3 and 4 summarize southbound peak hour traffic volumes, level of service (LOS), and density for roadways in the study area. The tables indicate that the project will provide improved LOS and density where southbound I-215 is proposed to be widened from two lanes to three lanes (highlighted in green boldface). No changes in peak hour volumes, LOS, or density are expected on other facilities in the project area. The traffic modeling indicates the project will provide additional roadway capacity and reduce existing and projected congestion.

**Table 3. Southbound Peak Hour Volumes, LOS, and Density for Roadways in the Project Area, Opening-Year Conditions (2015)<sup>a</sup>**

Segment	No Build			Build		
	Volume <sup>b</sup>	LOS	Density <sup>c</sup>	Volume	LOS	Density <sup>c</sup>
<b>I-215</b>						
Los Alamos to Murrieta	3,796 (3,884)	C (C)	21.3 (21.8)	3,796 (3,884)	C (C)	21.3 (21.8)
Murrieta to I-15 Junction	3,726 (3,297)	D (D)	33.9 (28.7)	3,726 (3,297)	<b>C (C)</b>	<b>20.9 (18.5)</b>
At I-15 Junction	2,597 (2,114)	C (C)	22.4 (18.2)	2,597 (2,114)	C (C)	22.4 (18.2)
<b>I-15</b>						
Murrieta to I-215 Junction	3,796 (3,884)	-	-	3,796 (3,884)	-	-
I-215 Junction to Winchester	3,726 (3,297)	-	-	3,726 (3,297)	-	-
<b>Valley Parkway Collector</b>						
I-15 Diverge	3,796 (3,884)	-	-	3,796 (3,884)	-	-
I-215 Ramp to I-15	3,726 (3,297)	A (A)	9.7 (10.2)	3,726 (3,297)	A (A)	9.7 (10.2)
South of I-215 Ramp	2,597 (2,114)	B (B)	13.1 (15.8)	2,597 (2,114)	B (B)	13.1 (15.8)
<b>I-215 Murrieta Hot Springs Interchange Ramps</b>						
Southbound Off-Ramp	849 (1,109)	C (C)	24.6 (25.4)	849 (1,109)	C (C)	24.6 (25.4)
Westbound On-Ramp	507 (280)	C (B)	21.1 (18.9)	507 (280)	C (B)	21.1 (18.9)
Eastbound On-Ramp	273 (151)	C (B)	21.8 (19.3)	273 (151)	C (B)	21.8 (19.3)

## Notes:

- Data not available

a. Values reported for am and (pm) peak hours. Changes in volume, LOS, or density between the Build and No Build condition are noted in **boldface**.

b. Vehicles per hour

c. Cars per lane

**Table 4. Southbound Peak Hour Volumes, LOS, and Density for Roadways in the Project Area, Design-Year Conditions (2035) <sup>a</sup>**

	<b>No Build</b>			<b>Build</b>		
<b>Segment</b>	<b>Volume<sup>b</sup></b>	<b>LOS</b>	<b>Density<sup>c</sup></b>	<b>Volume</b>	<b>LOS</b>	<b>Density<sup>c</sup></b>
<b>I-215</b>						
Los Alamos to Murrieta	5,722 (5,524)	D (D)	34.7 (32.7)	5,722 (5,524)	D (D)	34.7 (32.7)
Murrieta to I-15 Junction	5,245 (5,266)	F (F)	55.0 (55.2)	5,245 (5,266)	<b>D (D)</b>	<b>30.4 (30.5)</b>
At I-15 Junction	3,656 (3,377)	D (D)	33.0 (29.6)	3,656 (3,377)	D (D)	33.0 (29.6)
<b>I-15</b>						
Murrieta to I-215 Junction	7,677 (8554)	-	-	7,677 (8554)	-	-
I-215 Junction to Winchester	9,008 (8,863)	-	-	9,008 (8,863)	-	-
<b>Valley Parkway Collector</b>						
I-15 Diverge	2,325 (3,068)	-	-	2,325 (3,068)	-	-
I-215 Ramp to I-15	1,589 (1,889)	B (B)	13.7 (16.3)	1,589 (1,889)	B (B)	13.7 (16.3)
South of I-215 Ramp	3,914 (4,957)	C (D)	22.0 (28.3)	3,914 (4,957)	C (D)	22.0 (28.3)
<b>I-215 Murrieta Hot Springs Interchange Ramps</b>						
Southbound Off-Ramp	1,374 (1,160)	D (D)	34.4 (33.1)	1,374 (1,160)	D (D)	34.4 (33.1)
Westbound On-Ramp	583 (586)	D (D)	28.8 (28.9)	583 (586)	D (D)	28.8 (28.9)
Eastbound On-Ramp	314 (316)	D (D)	29.6 (29.7)	314 (316)	D (D)	29.6 (29.7)
Notes:						
a.	Data not available					
a.	Values reported for am and (pm) peak hours. Changes in volume, LOS, or density between the Build and No Build condition are noted in <b>boldface</b> .					
b.	Vehicles per hour					
c.	Cars per lane					

**Comments/Explanation/Details** (attach additional sheets as necessary)

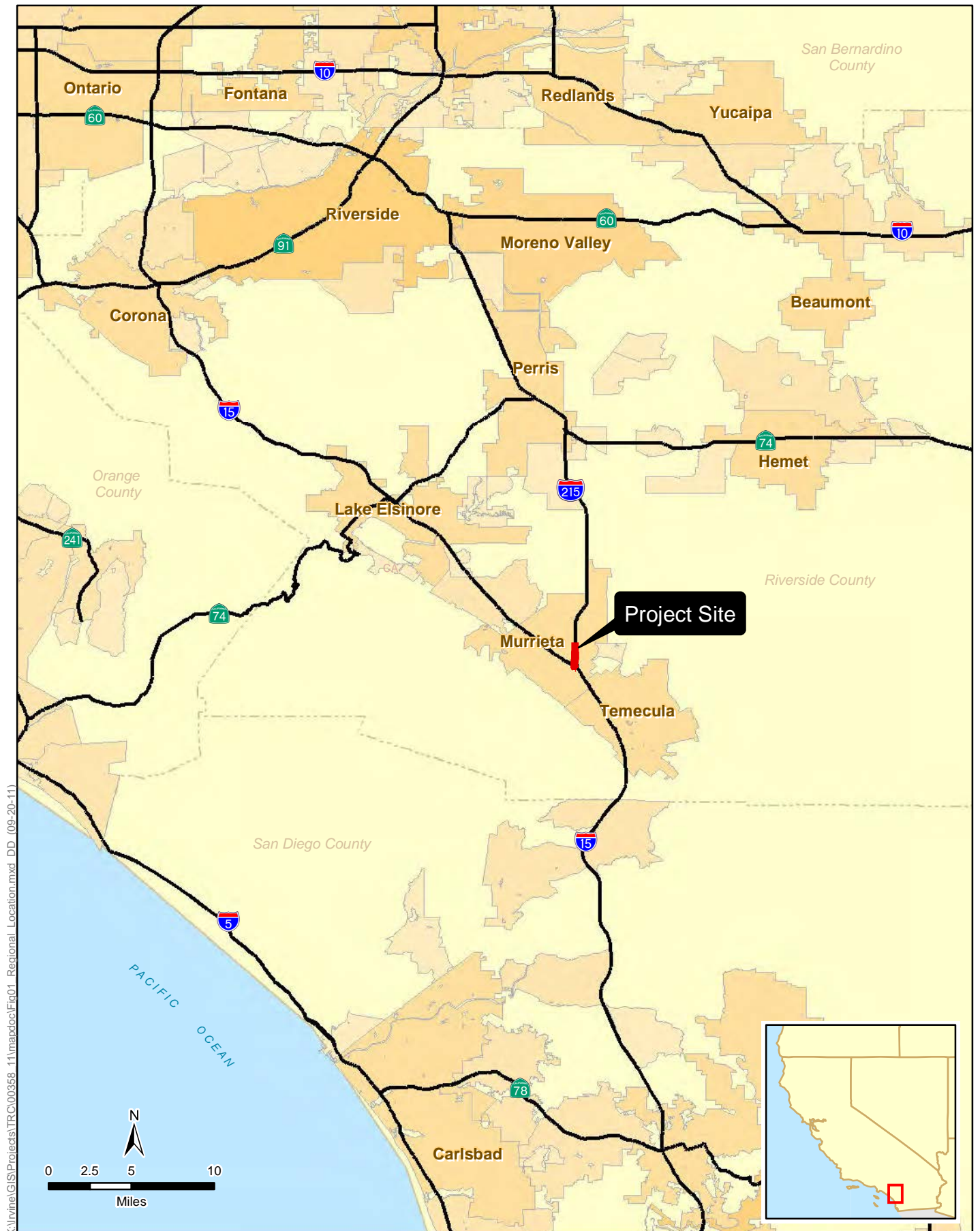
The proposed project is not a project of air quality concern because the project does not meet the following criteria (underlined text indicates answers to 40 CFR 93.123(b)(1) criteria for Projects of Air Quality Concern:

- (i) New or expanded highway projects that have a significant number of or significant increase in diesel vehicles. The project would add operational improvements on I-215, from just north of the Murrieta Hot Springs Road Interchange south to where the I-215 southbound connector crosses the I-15. Tables 1 and 2 indicate that total ADT in the opening and design years are 138,000 and 240,000, respectively, while maximum truck ADT in the opening and design years are 7,000 and 12,000 (5% of total ADT), respectively. While these values exceed the EPA's and FWHA POAQC guidance criteria of 125,000 ADT and 10,000 truck ADT (8% of 125,000), implementation of the project will not increase total ADT or the number of diesel vehicles, relative to no-build conditions. Rather, the project will provide congestion relief on I-215 (Tables 3 and 4), which would reduce PM emissions in the study area. By widening the west side of I-215, the project would also increase the distance between mainline traffic and sensitive receptors that are located southeast of the I-215 northbound lanes. The project would, therefore, be expected to reduce localized PM concentrations at surrounding land uses.
- (ii) Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project. Tables 3 and 4 indicate that several roadway segments in the study area will operate at LOS D or F under existing and no-build conditions. The project is not expected to cause a deterioration of these levels. Rather, on I-215 between Murrieta Hot Springs Road and I-15, the project will improve LOS from D to C under opening-year conditions and from F to D under design-year conditions. The project would, therefore, be expected to reduce localized PM concentrations at surrounding land uses
- (iii) New bus and rail terminals and transfer points than have a significant number of diesel vehicles congregating at a single location. The project does not include new bus or rail terminals and transfer points.
- (iv) Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location. The project does not include expanded bus or rail terminals and transfer points.
- (v) Projects in or affecting locations, areas, or categories of sites which are identified in the PM10 or PM2.5 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation. The project site is not in or affecting an area or location identified in any PM10 or PM2.5 implementation plan. The immediate project area is not considered to be a site of violation or possible violation.

**References**

California Department of Transportation. 2012. *Traffic Data Branch*. Available: <<http://traffic-counts.dot.ca.gov/>>. Accessed: August 31, 2012.

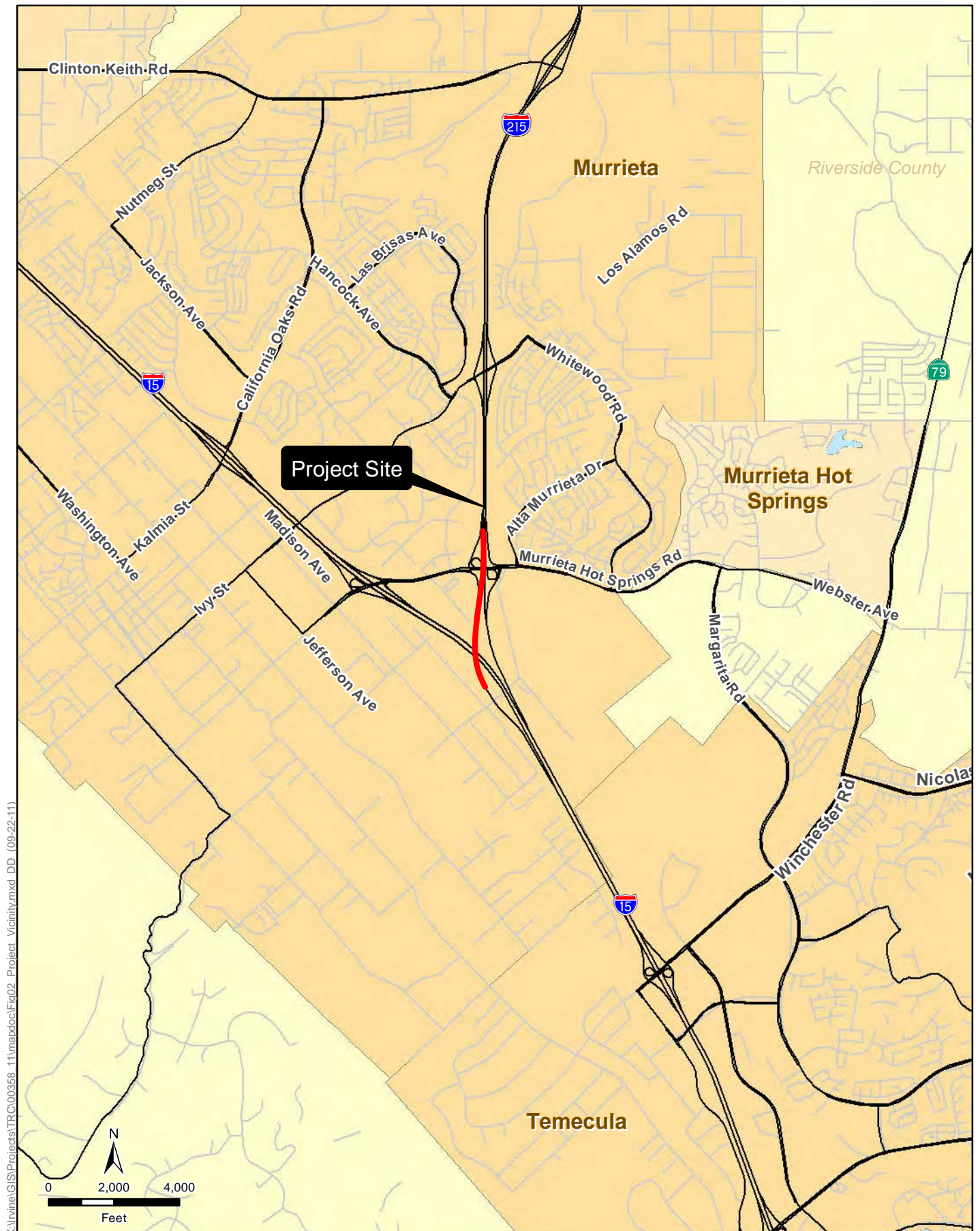
VRPA Technologies, Inc. *I-215 South Connector Widening Project Murrieta Hot Springs Road to I-15*. Traffic Technical Report 08-RIV-215 Project OF163. Prepared for Riverside County Transportation Commission. May.



SOURCE: ESRI Streetmap USA

**Figure 1-1**  
**Regional Location Map**  
**Interstate 215 South Connector Project**





SOURCE: ESRI Streetmap USA (2010)

**Figure 1-2**  
**Project Vicinity Map**  
**Interstate 215 South Connector Project**

## ICF ADT Calculations

Segment Name		CT Total ADT (2009)	SB % of Total ADT		
1	I-215 from Murrieta Hot Springs Road to Los Alamos Road	91,000	55%		
2a/b	I-215 from I-15 Junction to Murrieta Hot Springs Road	83,000	55%		
3	I-15 from Murrieta Hot Springs Road to I-215 Junction	109,000	46%		
4a/b/c	Calculated average for traffic north of Connector (1-3)	94,333	51%		
5	I-15 from I-215 Junction to Winchester Road	186,000	51%		

		TS SB ADT (2012)	TS SB ADT (2015 NB)	TS SB ADT (2015 B)	SB ADT (2035 N	TS SB ADT (2035 B)
1	I-215 from Los Alamos Road to Murrieta Hot Springs Road	50,500	54,700	54,700	76,100	76,100
2a	I-215 Murrieta Hot Springs Road to I-15 Junction	45,700	49,900	49,900	71,000	71,000
2b	I-215 at I-15 Junction Merge	45,700	33,400	33,400	47,500	47,500
3	I-15 from Murrieta Hot Springs Road to I-215 Junction	49,700	56,600	56,600	109,500	109,500
4a	Valley Parkway SB Collector from I-15 to I-215 SB Merge	-	18,800	18,800	36,400	36,400
4b	Valley Parkway SB Collector at I-215 SB Merge	-	16,500	16,500	23,500	23,500
4c	Valley Parkway SB Collector from I-215 SB Merge	-	35,300	35,300	59,900	59,900
5	I-15 from I-215 Junction to Winchester Road	95,400	71,200	71,200	120,600	120,600
Avg	Calculated average for traffic north of Connector (1-3)	47,900	-	-	-	-

		Total ADT (2012)	Total ADT (2015 NB)	Total ADT (2015 B)	Total ADT (2035 N	Total ADT (2035 B)
1	I-215 from Los Alamos Road to Murrieta Hot Springs Road	91,000	98,568	98,568	137,131	137,131
2a	I-215 Murrieta Hot Springs Road to I-15 Junction	83,000	90,628	90,628	128,950	128,950
2b	I-215 at I-15 Junction Merge	83,000	60,661	60,661	86,269	86,269
3	I-15 from Murrieta Hot Springs Road to I-215 Junction	109,000	124,133	124,133	240,151	240,151
4a	Valley Parkway SB Collector from I-15 to I-215 SB Merge	-	37,024	37,024	71,685	71,685
4b	Valley Parkway SB Collector at I-215 SB Merge	-	32,495	32,495	46,280	46,280
4c	Valley Parkway SB Collector from I-215 SB Merge	-	69,519	69,519	117,966	117,966
5	I-15 from I-215 Junction to Winchester Road	186,000	138,818	138,818	235,132	235,132